

**VEGETATION, WILDLIFE AND SOIL CONDITIONS REPORT
RAPP ROAD RESIDENTIAL PROJECT
TOWN OF GUILDERLAND,
ALBANY COUNTY, NEW YORK**

**October 2019
PREPARED BY:**

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1.0 INTRODUCTION

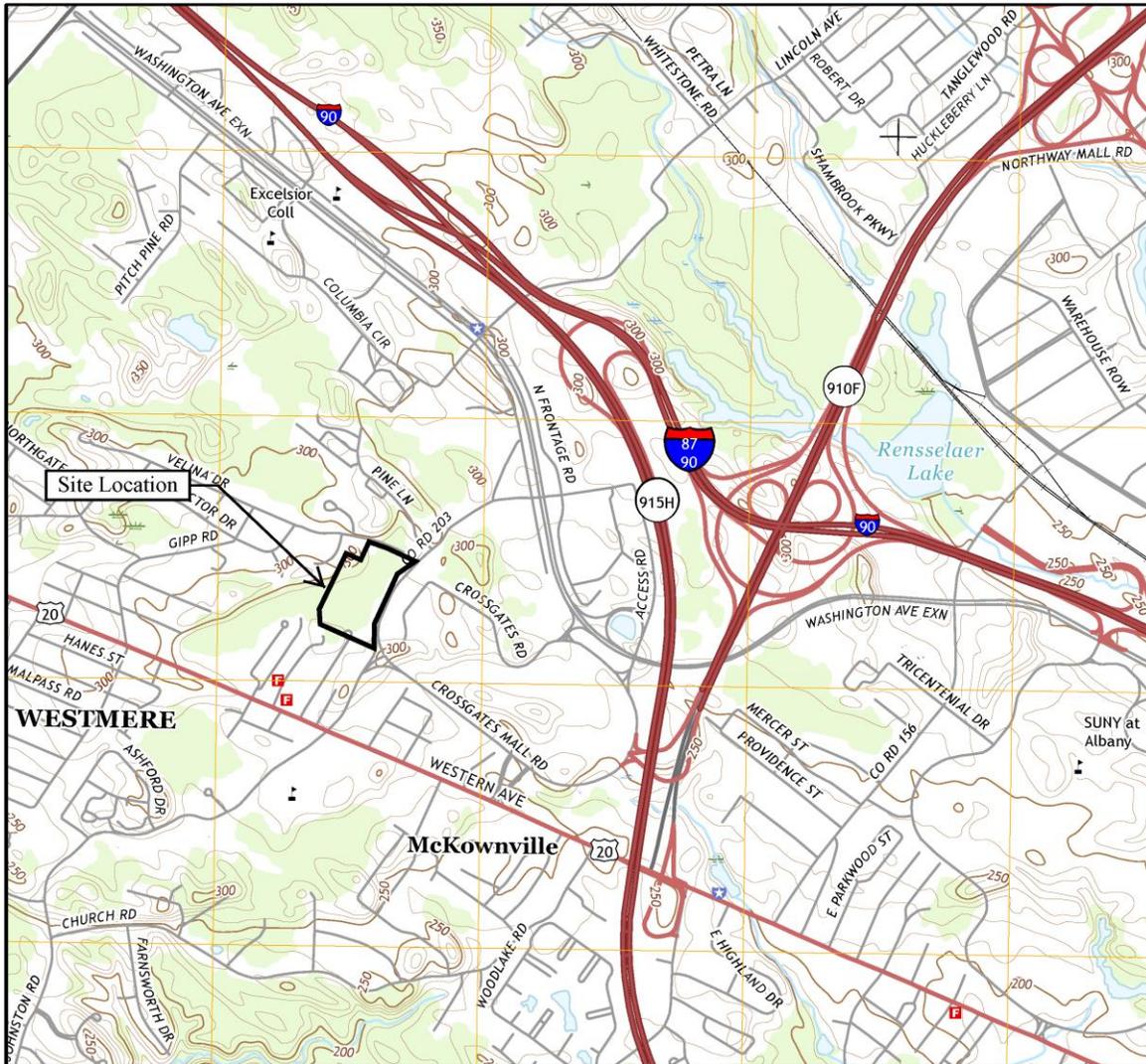
B. Laing Associates, Inc. has prepared this report in connection with the proposed development project on 19.68 acres of vacant property identified as Tax Lots 52.01-3-5.1 and 52.01-3-4.1, 52.01-3-4.2 and 52.01-3-3 in the Town of Guilderland, Albany County, New York (see Appendix C). The purpose of this report is to present the findings of multiple ecological reviews of habitats potentially conducive to the presence of state and federally listed endangered, threatened and/or rare species of flora and fauna, wetlands and any other sensitive ecological characteristics of the site¹. B. Laing Associates, Inc. has analyzed the site in relation to its ecology and the proposed action in relation to environmental/ecological disturbance and for any potential, significant, adverse environmental impacts as a result of the project.

1.1 Existing Conditions

The subject site is located north of properties on Westmere Terrace, south of Gipp Road and west of Rapp Road, in the Town of Guilderland, Albany County, New York. It is bordered on the east by the Crossgates Mall, to the north (across Gipp Road) by a National Grid power line right-of-way, to the west by another National Grid right of way and on the south by residential development. The site is approximately 19.68 acres and is comprised of four (4) tax lots. The property was operated as a pig farm for decades. Currently, the site is occupied by secondary, successional woodland. This ecological condition is the result of the discontinuance of pig farming and subsequent fill placement decades ago, which substantially altered the original soils and topography. The site is entirely uplands and the dominant characteristics of the uplands are disturbed, fill soils and the secondary succession vegetation. No wetlands are present on-site. Detailed descriptions of four parameters – vegetation, soils and hydrology and wildlife - are discussed below.

¹ B. Laing Associates, Inc. has been conducting ecological assessments in and around the Albany Pine Bush for 20 plus years. This site was first assessed in detail in June 2007 and the subject of reconnaissance-level investigations in 1998, and at least twice since June 2007. Between December 2016 and June 2017 detailed assessments were again conducted of the site. Most recently, B. Laing performed a detailed site assessment in June 2018 and July 2019.

FIGURE 1



SITE LOCATION MAP

(Source: Albany USGS 2016)

**PROJECT SITE:
TOWN OF GUILDERLAND
ALBANY COUNTY, NEW YORK**

1.1.1 Vegetation

As previously indicated, vegetation on-site is consistent with a secondary succession woodland as a result of new growth after decades of use as a pig farm followed by significant filling. The canopy of the woodland is closed and composed mostly of mature to middle-aged cottonwood (*Populus deltoides*, FAC). The closed canopy creates considerable shade below and limits understory growth to those species which are shade tolerant or species which colonized the site at an earlier successional stage. Further, cottonwoods are a transitional species and would give way to other species within the next decade or two. Other tree species include white pine (*Pinus strobus*, FACU), red maple (*Acer rubrum*, FAC), black cherry (*Prunus serotina*, FACU), and boxelder (*Acer negundo*, FAC). The canopy height was measured in the fall of 2018 and was determined to be 50 feet high. Shrubs identified in this area include Japanese honeysuckle (*Lonicera japonica*, FACU), tartarian honeysuckle (*Lonicera tatarica*, FACU), serviceberry (*Amelanchier canadensis*, FAC) and hawthorn (*Crataegus sp.*, UPL).

The understory herbaceous layer on-site is marginal and consists mainly of upland species. It is composed of dispersed goldenrod (*Solidago sp.*), garlic mustard (*Alliaria petiolata*, FACU), Queen Anne's lace (*Daucus carota*, UPL), daisy fleabane (*Erigeron annuus*, FACU), and wild geranium (*Geranium maculatum*, FACU).

The southwestern portion of the site contains a small, isolated field. This area is dominated by grass and meadow-like, herbaceous species such as broomsedge (*Andropogon virginicus*, FACU), Queen Anne's lace (*Daucus carota*, UPL), and common mullein (*Verbascum thapsus*, UPL).

The majority of the identified plants are facultative, facultative upland and obligate upland species. Only few species of vegetation observed during field efforts were facultative wetland species. Thus, the site is a moist to dry, closed canopy woodland. No wetlands are present.

The subject site lacks pitch pine (*Pinus rigida*) and contains few grassland, vegetative species. Blue lupine (*Lupinus perrennis*) was specifically searched for and was not found. This result would be expected due to the closed, woodland canopy on the majority subject property (See also Section 2.0). The southwestern portion of the site (field-conditions; see above) was also inventoried for blue lupine; none was found. Vegetation on site is consistent with secondary successional woodland and no areas of pine bush vegetation (pine bush habitat) occur.

The complete plant list can be found in this report in Table 1.

1.1.2 Soils

The Soil Survey for Albany County depicts the site has consisting of Colonie loam fine sand, Elnora loamy fine sand, Granby loamy fine sand, Stafford loamy fine sand, Udipsamments, smoothed. The United States Department of Agriculture (USDA) National Resources Conservation District (NRCS) described the soils as follows:

The Colonie series consists of very deep, well drained to excessively drained soils formed in glaciolacustrine, glaciofluvial, or eolian deposits dominated by fine sand and very fine sand. Permeability is moderately rapid or rapid. Slope ranges from

0 to 60 percent (but range that steeply on-site only on fill side slopes).

The Elnora series consists of very deep, moderately well drained soils on glacial lake plains and deltas. These soils formed in wind or lacustrine deposited sands. Slopes range from 0 to 8 percent.

The Granby series consists of very deep, poorly drained to very poorly drained soils on glacial lake plains or deltas. These soils formed in water or wind deposited sands. Slopes range from 0 to 2 percent.

The Stafford series consists of very deep, somewhat poorly drained soils formed in sandy glacio-lacustrine deposits. They are nearly level soils on deltas and sand plains. Saturated hydraulic conductivity is high or very high throughout the soil. Slopes range from 0 to 3 percent.

Udipsamments series consists of very deep, well drained to somewhat excessively well drained soils on lake plains, deltas, flood plains and dunes that have been smoothed or filled. Slopes range from 0 to 8 percent.

Soil investigations on-site determined that the site is dominated by Colonie and Elnora, upland soils which have been heavily disturbed over time. Those much smaller areas depicted as Stafford or Granby soils were, in fact, also dry, high chroma upland, sandy soils. No deep, somewhat poorly drained soils were identified on-site. Bright yellow chromas (5-6) were identified from a depth of 8 inches to 18 inches on-site. This is often the result of disturbed, fill soils placed on-site (see below). Additionally, no free water was observed within 18 inches of the surface. The lack of an aquiclude prevents water retention and so, hydric condition have not developed. Thus, it was determined that no Stafford or Granby soils were present on-site. Well drained soils such as the Colonie, Elnora and Udipsamments series described above occupy the site.

Soils on the northern and western portion of the subject site can be considered Udorthents – i.e., urban cut and fills. However, all of the site's soils and vegetation had been substantially disturbed during its use as a pig farm. The pig farm had numerous buildings and pens. Pigs are known to “root” which would extensively gouge the upper soils. Further, the pig farm was kept in an “open aspect” with little to no tree or shrub vegetation and, most likely, continuously exposed soils. The limited cover and exposed soil surface created a considerable amount of erosion. Overtime, the upper soil materials were then transported downhill and filled the lower portions of the topography with a fine, silty sand. This “double” soil horizon (in the “A” layer) is evident in several locations. The site also has considerable fills (up to ten feet deep) on the site's northern half. Filling is also evident on the site's western quarter.

As a result of these activities, any small areas of soil which may have been originally somewhat poorly or poorly drained have disappeared. In addition, whatever qualities the original soils had, especially in comparison to the Albany Pine Bush, have been lost/disturbed since at least the 1960's. See Figure 3 for a soils map of the project location.

1.1.3 Hydrology

The site is entirely uplands with well drained soils/fills dominating the landscape. No wetlands or hydrologic features occur on-site or adjacent to the site. The lack of hydrologic features on-site is possibly due to (i) the dominance of sands, (ii) the absence of a geologic, impermeable layer or aquiclude beneath the sandy sediment layer, (iii) significant erosion from high topography areas to lower topography areas when the site was a pig farm and (iv) significant, prior cutting and filling of the site's surface. Thus, permeability rate is high and site conditions are dry.

No wetlands are identified on the New York State Department of Environmental Conservation (NYSDEC) freshwater wetlands map or the U.S. Fish and Wildlife Service National Wetland Inventory (NWI) maps. In addition, no hydrologic features are shown on the 1962 United States Geological Survey quadrangle (see Figure 2).

1.1.4 General Wildlife

Several wildlife species were observed during B. Laing Associates, Inc.'s field inventories. These field inventories were specifically conducted as transects of the property to target potential listed species (e.g., Karner blue butterfly, frosted elfin, etc.). In July 2019, B. Laing Associates, Inc. conducted an additional field inventory to catalog a broader range of organisms on site (for example bees, beetles, moths, and other invertebrates). Wildlife recorded consisted of species common to the Guilderland/Albany area and typical of the secondary, successional and largely woodland habitats on site. This includes a number of avian species such as various passerines, raptors, and woodpeckers, as well as mammals typical of suburban areas.

Search methodologies employed for locating listed species and species of special concern varied depending on the subject species:

- For locating listed lepidopterans (i.e. butterflies), transects were walked throughout habitat which were found to be conducive to flying adults. In addition, these transects were specifically searched for those host plants, of which their larvae are specialists. In addition, nocturnal surveys were conducted, including lighting and "sheet" attraction methods.
- For locating listed herptiles (e.g., worm snake, eastern hognose snake, etc.), trained observers methodically walked the Site in rough transects, searching for individual organisms, as well as their habitat and under objects beneath which they might roost/hide. In addition, nocturnal surveys were conducted, including listening for vocalizing frogs and toads.
- Any "general" wildlife and plant life encountered in these more specific surveys were also identified and recorded.

A list of species observed on site during B. Laing Associates field efforts can be found in Table 2. Potential endangered, threatened or special concern species are discussed separately below.



FIGURE 2
HISTORIC AERIAL MAP
 (Source: Albany USGS 1962)²

PROJECT SITE:
TOWN OF GUILDERLAND,
ALBANY COUNTY, NEW YORK

² Shows property “open”, i.e., as a pig farm, lacking woodlands.

Soil Map—Albany County, New York
 (Figure 3 - Soil Map - Boundaries Approximate)

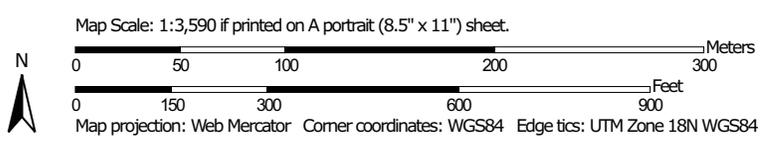


TABLE 1
Vegetative Species List

	<u>Species</u>	<u>Scientific Name</u>	<u>Indicator Status</u>
Trees			
	American beech	<i>Fagus grandifolia</i>	FACU
	Black locust	<i>Robinia pseudoacacia</i>	FACU
	Red maple	<i>Acer rubrum</i>	FAC
	Black cherry	<i>Prunus serotina</i>	FACU
	White pine	<i>Pinus strobus</i>	FACU
	Cottonwood	<i>Populus deltoides</i>	FAC
	Black willow	<i>Salix nigra</i>	FACW
	Red oak	<i>Quercus rubra</i>	FACU
	Box elder	<i>Acer negundo</i>	FAC
	Catalpa	<i>Catalpa speciosa</i>	FAC
	Staghorn sumac	<i>Rhus typhina</i>	UPL
	Red cedar	<i>Juniperus virginiana</i>	FACU
	Spruce	<i>Picea sp.</i>	FACU
	Tree of heaven	<i>Ailanthus altissima</i>	FACU
Shrubs			
	Hawthorn	<i>Crataegus sp.</i>	UPL
	Tartarian honeysuckle	<i>Lonicera tatarica</i>	UPL
	Japanese honeysuckle	<i>Lonicera japonica</i>	FAC
	Multiflora rose	<i>Rosa multiflora</i>	FACU
	Raspberry	<i>Rubus idaeus</i>	UPL
	Serviceberry	<i>Amelanchier sp.</i>	UPL
	Highbush blueberry	<i>Vaccinium corymbosum</i>	FACW
Herbaceous			
	American pokeweed	<i>Phytolacca decandra</i>	FACU
	Broomsedge	<i>Andropogon virginicus</i>	FACU
	Cleavers	<i>Galium aparine</i>	FACU
	Common mullein	<i>Verbascum thapsus</i>	UPL
	Common nettle	<i>Urtica dioica</i>	FAC
	Daisy fleabane	<i>Erigeron strigosus</i>	FACU
	Garlic mustard	<i>Alliaria petiolate</i>	FACU
	Goldenrod	<i>Solidago sp</i>	UPL

	Greater celandine	<i>Chelidonium majus</i>	UPL
	Jewelweed	<i>Impatiens capensis</i>	FACW
	Milkweed	<i>Asclepias syriaca</i>	UPL
	Mugwort	<i>Artemisia vulgaris</i>	UPL
	Ostrich fern	<i>Matteuccia struthiopteris</i>	FAC
	Queen Anne's lace	<i>Daucus carota</i>	UPL
	Sensitive fern	<i>Onoclea sensibilis</i>	FACW
	White sagebrush	<i>Artemisia ludoviciana</i>	UPL
	Wild geranium	<i>Geranium maculatum</i>	FACU
Woody Vines			
	Grape	<i>Vitis sp.</i>	FACU
	Oriental Bittersweet	<i>Celastrus orbiculatus</i>	UPL
	Poison Ivy	<i>Toxicodendron radicans</i>	FAC
	Virginia Creeper	<i>Parthenocissus quinquefolia</i>	FACU

TABLE 2³
WILDLIFE SPECIES LIST

	Common Name	Scientific Name
Birds		
Taxonomic order	Wild Turkey	<i>Meleagris gallopavo</i>
	Mourning Dove	<i>Zenaida macroura</i>
	Killdeer†	<i>Charadrius vociferus</i>
	Great Blue Heron†	<i>Ardea herodias</i>
	Black Vulture†	<i>Coragyps atratus</i>
	Turkey Vulture†	<i>Cathartes aura</i>
	Cooper's Hawk†	<i>Accipiter cooperii</i>
	Red-tailed Hawk†	<i>Buteo jamaicensis</i>
	Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>
	Red-bellied Woodpecker	<i>Melanerpes carolinus</i>
	Downy Woodpecker	<i>Dryobates pubescens</i>
	Northern Flicker	<i>Colaptes auratus</i>
	Eastern Kingbird	<i>Tyrannus tyrannus</i>
	Blue Jay	<i>Buteo jamaicensis</i>
	American Crow	<i>Corvus brachyrhynchos</i>
	Black-capped Chickadee	<i>Poecile atricapillus</i>
	Tufted Titmouse	<i>Baeolophus bicolor</i>
	House Wren	<i>Troglodytes aedon</i>
	Carolina Wren	<i>Thryothorus ludovicianus</i>
	Gray Catbird	<i>Dumetella carolinensis</i>
	Northern Mockingbird	<i>Mimus polygottos</i>
	Wood Thrush	<i>Hylocichla mustelina</i>
	American Robin	<i>Turdus migratorius</i>
	Cedar Waxwing	<i>Bombycilla cedrorum</i>
	House Finch	<i>Haemorhous mexicanus</i>
	American Goldfinch	<i>Spinus tristis</i>
	Chipping Sparrow	<i>Spizella passerina</i>
	Dark-eyed Junco	<i>Junco hyemalis</i>
	White-throated Sparrow	<i>Zonotrichia albicollis</i>
	Song Sparrow	<i>Melospiza melodia</i>
	Baltimore Oriole	<i>Icterus galbula</i>
	Common Grackle	<i>Quiscalus quiscula</i>

³ † indicates a species of bird seen flying over the project location but not directly using the site. (i.e. diurnal migrants, raptors riding thermals, etc.) No Cooper's Hawks (a NYS species of special concern) were observed using the project Site to roost, rest, hunt or breed.

<i>Birds, cont.</i>	Common Yellowthroat	<i>Geothlypis trichas</i>
	American Redstart	<i>Setophaga ruticilla</i>
	Northern Cardinal	<i>Cardinalis cardinalis</i>
	Indigo Bunting	<i>Passerina cyanea</i>
Coleopterans	Asian garden beetle	<i>Maladera castanea</i>
	Astyleiopus variegatus	<i>Astyleiopus variegatus</i>
	Bee-mimic beetle	<i>Trichiotinus assimilis</i>
	Common eastern firefly	<i>Photinus pyralis</i>
	Ground beetle	<i>Notiobia sp.</i>
	Hairy flower scarab	<i>Trichiotinus affinis</i>
	Oriental beetle	<i>Anomala orientalis</i>
	Firefly sp.	<i>Pyractomena sp.</i>
Dipterans	Asian tiger mosquito	<i>Aedes albopictus</i>
	Crane fly	<i>Tipulidae sp.</i>
	Eastern calligrapher	<i>Toxomerus geminatus</i>
	Euaresta bella	<i>Euaresta bella</i>
	Flesh fly	<i>Sarcophaga sp.</i>
	Long-legged fly	<i>Condylostylus sp.</i>
	Homoneura sp.	<i>Homoneura sp.</i>
	House mosquito	<i>Culex quinquefasciatus</i>
	Margined Calligrapher	<i>Toxomerus marginatus</i>
	Marsh snipe fly	<i>Rhagio tringarius</i>
	Robber fly	<i>Efferia aestuans</i>
	Scorpion fly	<i>Panorpa rufescens</i>
Hymenopterans	Western honeybee	<i>Apis mellifera</i>
	Common eastern bumblebee	<i>Bombus impatiens</i>
	Ichneumonid wasp	<i>Pimpla sp.</i>
	Ligated furrow bee	<i>Halictus ligatus</i>
	Square-headed wasp	<i>Ectemnius sp.</i>
Lepidopterans		
Butterflies	American copper	<i>Lycaena phlaeas</i>
	Cabbage white	<i>Pieris rapae</i>
	Common ringlet	<i>Coenonympha tullia</i>
	Common wood-nymph	<i>Cercyonis pegala</i>
	Little wood-satyr	<i>Megisto cymela</i>

<i>Butterflies, cont.</i>	Monarch	<i>Danaus plexippus</i>
	Northern broken-dash	<i>Wallengrenia egeremet</i>
	Pearl crescent	<i>Phyciodes tharos</i>
	Question mark	<i>Polygonia interrogationis</i>
	Red admiral	<i>Vanessa atalanta</i>
	Skipper sp.	<i>Hesperiidae sp.</i>
	Summer azure	<i>Celastrina neglecta</i>
Moths	American idia moth	<i>Idia americalis</i>
	Banded olethreutes moth	<i>Olethreutes fasciatana</i>
	Banded/Sycamore tussock moth	<i>Halysidota sp.</i>
	Black duckweed moth	<i>Elophila tinealis</i>
	Blackberry looper	<i>Chlorochlamys chloroleucaria</i>
	Bog glyph	<i>Deltote bellicula</i>
	Bold-feathered grass moth	<i>Herpetogramma pertextalis</i>
	Buck's plume moth	<i>Geina buscki</i>
	Charming underwing	<i>Catocala blandula</i>
	Common gluphisia moth	<i>Gluphisia septentrionis</i>
	Dimorphic tosale	<i>Tosale oviplagalis</i>
	Early fan-foot	<i>Zanclognatha cruralis</i>
	Edosa sp.	<i>Edosa sp.</i>
	Fall webworm moth	<i>Hyphantria cunea</i>
	Forage looper	<i>Caenurgina erechtea</i>
	Girard's grass-veneer	<i>Crambus girardellus</i>
	Goldenrod leaffolder moth	<i>Agonopterix pulvipennella</i>
	Haploa moth	<i>Haploa sp.</i>
	Horned spanworm moth	<i>Nematocampa resistaria</i>
	Large lace-border	<i>Scopula limboundata</i>
	Large mossy glyph	<i>Protodeltote muscosula</i>
	Maple leaftier moth	<i>Acleris forsskaleana</i>
	Maple webworm moth	<i>Pococera asperatella</i>
	Morbid owlet	<i>Chytolita morbidalis</i>
	Omnivorous leafroller	<i>Platynota stultana</i>
	Pale beauty	<i>Campaea perlata</i>
	Pearly wood-nymph	<i>Eudryas unio</i>
	Red-banded leafroller	<i>Argyrotaenia velutinana</i>
	Ruby tiger moth	<i>Phragmatobia fuliginosa</i>
	The brother	<i>Raphia frater</i>
	Tulip-tree beauty	<i>Epimecis hortaria</i>

<i>Moths, cont.</i>	Wavy-lined fan-foot	<i>Zanclognatha jacchusalis</i>
	White-lined leafroller	<i>Amorbia humerosana</i>
	White-striped black moth	<i>Trichodezia albovittata</i>
	Yellow-spotted webworm	<i>Anageshna primordialis</i>
Herptiles	Gray tree frog	<i>Hyla versicolor</i>
Mammals	Eastern cottontail	<i>Sylvilagus floridanus</i>
	Eastern chipmunk	<i>Tamias striatus</i>
	Gray squirrel	<i>Sciurus carolinensis</i>
	White-tailed deer	<i>Odocoileus virginianus</i>
Mollusks	Common European ambersnail	<i>Succinea putris</i>
	Dusky-type slug	<i>Arion sp.</i>
Odonates	Common whitetail	<i>Plathemis lydia</i>
	Meadowhawk	<i>Sympetrum sp.</i>
	Twelve-spotted skimmer	<i>Libellula pulchella</i>
Other Inverts.	Acanthocephala terminalis	<i>Acanthocephala terminalis</i>
	Alfalfa plant bug	<i>Adelphocoris lineolatus</i>
	Annual cicada	<i>Cicadidae sp.</i>
	Black damsel bug	<i>Nabis subcoleoptratus</i>
	Black leafhopper	<i>Acutalis tartarea</i>
	Common earthworm	<i>Lumbricus terrestris</i>
	Eastern black carpenter ant	<i>Camponotus pennsylvanicus</i>
	Eastern subterranean termite	<i>Reticulitermes flavipes</i>
	Fall field cricket	<i>Gryllus pennsylvanicus</i>
	Goldenrod crab spider	<i>Misumena vatia</i>
	Greenhouse millipede	<i>Oxidus gracilis</i>
	Japanese leafhopper	<i>Orientus ishidae</i>
	Long-horned caddisfly	<i>Leptoceridae sp.</i>
	Oleander aphid	<i>Aphis nerii</i>
	Phytocoris sp.	<i>Phytocoris sp.</i>
	Red-banded leafhopper	<i>Graphocephala coccinea</i>
	Two-striped grasshopper	<i>Melanoplus bivittatus</i>
	Uroleucon aphid	<i>Uroleucon sp.</i>



National Grid Right-of-Way

Protection Agreement/Easement Area

Karner Blue Hill Preserve

Crossgates Mall

Crossgates Rd

Crossgates Mall Rd

Tiernan Ct

Rielton Ct

Western Ave

Lawton Terrace

Rapp Rd.

203

Project Site (Boundaries Approx.)

Westmere Terrace

Centre Dr

Brooks Rd

Paden Cir

Gipp Rd.

Wilan Ln

Woodridge Ct

Town of Guilderland Pump Station



Figure 4:
Regional View

B. LAING ASSOCIATES
103 Fort Salonga Road - Suite 5
Fort Salonga, NY 11768

1.2 Impacts

Rapp Road Development, LLC has proposed the construction of a project on vacant property in the Town of Guilderland, Albany County, New York. As previously described, the subject property was operated for decades as a pig farm and partially filled. Currently, the site is dominated by a closed canopy, secondary successional woodland. The disturbed, ecological condition is the result of the prior operations of the pig farm and fill placement which substantially altered the original soils and topography on the subject property. No wetlands or hydric soil conditions are present on-site. The dominant characteristics of the uplands are disturbed, fill soils and secondary succession vegetation.

The site will be graded and/or landscaped in accordance with the site plan. The buffers to the north and west will not be disturbed, i.e., they will be preserved.

The Albany Pine Bush Preserve Commission 2017 Management Plan, Table 9 lists this site as #57 and recommends “Partial Protection.” This partial protection designation is further described as,

“Partial development of area 57 may be appropriate provided proper set-asides are protected and native pine barren plantings are used for landscaping to ensure that the area can widen and protect the existing Karner blue butterfly linkage between Crossgates Hill and Preserve lands to the east.”

The proposed 200' undeveloped area on the north side of the site is consistent with the Management Plan's recommendation for partial protection⁴. Only the northern portion of the site is in the vicinity of the linkage corridor (north of Gipp Road) between the Crossgates Hill to the east and the Pine Bush Preserve lands to the west. Per the plan, this northern area will provide an adequate buffer between development on the site and the linkage corridor north of Gipp Road. It is noted that the Town of Guilderland acquired a 0.392-acre parcel at the northwestern corner of the 200' undeveloped area and constructed water pumping facilities in this location.

As the site is currently disturbed and lacks any characteristics typical of Albany Pine Bush habitats, no significant impacts are anticipated as a result of the project. As a part of the development, parking will be constructed but will be entirely on site. Existing utilities are available in the area from the south and east plus access is available off Rapp Road. As provided above, the Albany Pine Bush corridor is separated from the project site by Gipp Road and 200 feet of land at the northern end of the project property which will be left in its existing, thickly wooded, secondary successional condition. The trees in this area are some 50 feet high. They currently (and naturally have) cast some shade upon the Albany Pine Bush corridor north of Gipp Road (and the Karner Blue Butterfly recovery has continued). The proposed residential buildings will be 4 stories tall and some 55 feet above grade. Since they will be setback over 200-feet from the property's northern edge, they will not cast further shadows or reflected light

⁴ It is noted that in a July 10, 2019 correspondence, NYSDEC stated that they had examined the proposed site plan and stated: “Based on a preliminary review of the 7/2/19 plan, it appears that the area proposed to be left undeveloped will provide a substantial buffer to the Crossgates - Kbb Management Area.”

into the Albany Pine Bush corridor. Further, the residential buildings will not add materially to any “heat island” effects of the current commercial development which flanks Western Avenue (including the Crossgates Mall). Thus, no indirect adverse impacts to wildlife, flora and fauna due to utilities or access will occur. The site plan includes sufficient buffer at the northern portion of the site consistent with the goals and objectives of the Albany Pine Bush 2017 Management Plan.

2.0 POTENTIAL ENDANGERED AND THREATENED ZOOLOGICAL SPECIES OF NEW YORK STATE:

B. Laing Associates consulted directly with the NYSDEC New York Natural Heritage Program for up to date information regarding rare animals, rare plants, and significant ecosystems at this site located in the Town of Guilderland, Albany County, New York. In response to the request, New York Natural Heritage Program issued a letter report with species located within the vicinity of the project site. Species identified are the Karner blue butterfly (*Lycaeides melissa samuelis*) and the threatened frosted elfin (*Callophrys irus*). Several species identified as Special Concern were also documented within the vicinity of the project site. These include the eastern worm snake (*Carphophis amoenus*), eastern spadefoot toad (*Scaphiopus holbrookii*), and eastern hognose snake (*Heterodon platyrhinos*). Two species of butterflies and moths, both of Special Concern, were also listed as occurring in the Albany Pine Bush.

The US Fish and Wildlife Service's IPaC system was also checked. This search also determined the Karner blue butterfly to occur in the area and added the northern long-eared bat (*Myotis septentrionalis*).

Listed species potentially occurring within the vicinity of the project site are described below. As a result of this documentation, B. Laing Associates determined that formal field review of the site was warranted. Subsequently, B. Laing visited the site on multiple occasions in June 2017 and conducted a formal field review. B. Laing performed another formal field review in June 2018. During the field reviews, B. Laing actively searched for endangered, threatened and/or rare species, including flora and fauna of special concern both on-site and in portions of the Albany Pine Bush, off site and to the north of Gipp Road. B. Laing specifically reviewed the project site for habitats that would be deemed conducive to the presence of those species documented to occur in the area.

While surveying for listed lepidopterans (i.e. butterflies), transects were walked throughout habitat which were found to be conducive to flying adults. In addition, these transects were specifically searched for those host plants, of which their larvae are specialists. In addition, nocturnal surveys were conducted, including lighting and "sheet" attraction methods for those night-flying species (i.e. moths).

2.1 Karner Blue (*Lycaeides melissa samuelis*)

2.1.1 Habitat and Needs

The Karner blue butterfly is listed by New York State and the US Fish and Wildlife Service as endangered. The butterfly is also listed as federally endangered. The NYSDEC defines endangered as:

- (1) are native species in imminent danger of extirpation or extinction in New York listing in section 182.3(b) of this Part and that are listed as endangered in section 182.5(a) of this Part;
- or

- (2) are species listed as endangered by the United States Department of the Interior in the *Code of Federal Regulations* (50 CFR Part 17).

The U.S. Fish and Wildlife describes the appearance of the Karner blue as a small butterfly with a wingspan of about one inch. The male and female vary in appearance. The topside of the male is silvery or dark blue with narrow black margins. The female is grayish brown, especially on the outer portions of the wings, to blue on the topside, with irregular bands of orange crescents inside the narrow black border. In both sexes, the underside is gray with a continuous band of orange crescents along the edges of both wings and with scattered black spots circled with white. The Karner blue butterfly is found in small populations from Minnesota to New Hampshire where their main food source, the blue lupine (*Lupinus perrennis*), are present.

Karner blue are found in New York in the Albany Pine Bush area⁵. They have four typical life cycles and produce two broods. Broods appear May to mid-June and mid-July to early August. These butterflies occupy areas that are dry and sandy with open woods and clearings (shrubby and field habitats) that support blue lupine. Vegetative species connected with this type of habitat include pitch pine (*Pinus rigida*) and scrub oak/bear oak (*Quercus ilicifolia*) communities with interspersed grassy fields.

2.1.2 Potential On-site

The subject site does not provide adequate or suitable habitat for the Karner blue butterfly. The butterfly relies on blue lupine, its host plant, for its lifecycle. Karner blue eggs are laid on the stems of blue lupine and the leaves of the blue lupine are consumed by the caterpillar. No blue lupine plants were identified or were expected to occur on site within either the closed canopy woodland or the small, isolated field located on the southwestern portion of same. Blue lupine requires open sandy areas with open space and low shrubby to herbaceous growth. Please see Appendix A for photographs outlining habitats on site; none of the above criteria occur on site.

In addition to the lack of on-site suitable habitat for this species, the secondary successional woodland area (south of Gipp Road) separating the site from Gipp Road acts as a buffer area from the northern site boundary. This area is consistent with a recommendation in the 2017 Management Plan for partial protection of the site. Per the plan, the buffer will further protect the linkage between Crossgates “Butterfly” Hill and preserve lands to the west (see Sections 1.2 and 4.0).

The project site’s proposed 200-foot buffer area is currently a densely wooded, secondary growth vegetative community with a significant amount of fill having disturbed the original soils. Also, for many decades prior to its being allowed to go “fallow,” the site (and buffer area) was a pig farm. Thus, in the modern period (i.e., the last approximately 100 years or more), the site was/has been highly disturbed and was not a Pine Bush habitat⁶.

⁵ B. Laing Associates, Inc. personnel have been conducting ecological inventories on projects in and around the Pine Bush of New York for at least 20 years. They have located (but not collected) Karner blue butterflies and the associated blue lupine in past efforts.

⁶ This observation is further bolstered by the absence of entisols, acidic pH and duff containing pine needles or shrub oak leaves, etc.

2.1.3 Karner Blue Hill Preserve

The project includes a connection between the northern ring road and Rapp Road in the northwest corner of the Crossgates Mall site. This area consists of landscaping along Rapp Road and a parking lot within the Mall site. On the Rapp Road Residential project site, an access road from Rapp Road to the project is proposed opposite the connection at Crossgates Mall.

These areas are south, and not part, of the existing Karner Blue Hill Preserve area which will remain undisturbed and not impacted. The existing utility right-of-way to the north of the site on the east side of Rapp Road forms a portion of the Karner Blue Butterfly Preserve area which was identified in the 1994 and 1996 NYSDEC SPDES Permits for Crossgates Mall. The access road to the Rapp Road Residential project is located over 200 feet south of the northern property boundary. The connection at Crossgates Mall will be no closer to the Karner Blue Hill Preserve area than the existing parking facilities.

The Karner Blue Hill Preserve area contains extensive buffering, including existing dunes (one approximately 20 feet in height adjacent to the parking facilities), that were designed to “channel” the butterfly movement path along the National Grid power line right of way to Rapp Road and then to the north toward other areas in the Pine Bush Preserve and deter dispersion to the south where the connector road is proposed.

The project will not occur adjacent to the managed corridor along the National Grid power line right of way. That corridor ends across two roadways away from the project property (Rapp and Gipp Roads) and then an *additional* 200 feet of buffer will remain on the project site. The migration corridor turns sharply to the north at Rapp Road. Therefore, the proposed project will not interfere with the management of the corridor for cutting, invasives removal, or fire management.

According to the Pine Bush Commission’s Protection Priorities and Vision Plan, the Karner Blue butterfly corridor follows the National Grid power line westward from the Karner Blue Butterfly Hill on the Crossgates Mall site to the Rapp Road/Gipp Road intersection. At that point the migration corridor turns sharply to the north and then to the west to encourage movement of butterflies to existing Preserve lands to the west. The Project has been designed to avoid impacts to the Karner blue butterfly migration corridor in a manner consistent with the goals and objectives of the Pine Bush Management Plan. Therefore, the proposed access road to the Rapp Road Residential project and the connection between Rapp Road and the northern ring road respects the existing boundary of the Karner Blue Hill Preserve area and will be located over 200-feet from the northern property boundary (west of Rapp Road). These improvements, including the anticipated associated new vehicular traffic, will have no impact on the Karner Blue Hill Preserve area and its intended functions and purpose, or on the Karner blue butterfly- see below.

Presently the butterflies have to cross Rapp Road in order to move between the right-of-way and the existing Preserve lands to the west. The proposed project will increase traffic along this roadway, but the increase will be minimal. Traffic analyses by Maser Consulting, P.A., were analyzed at this location, comparing the existing condition and the full (year 2025) build-out. When compared to the existing condition, the full build out predicts an increase of 125 cars at the *peak* PM hour during weekdays and an increase of 162 cars during the *peak* hour during

Saturdays. This amounts to an additional 2 cars per minute during the height of vehicular traffic during weekdays and fewer than an additional 3 cars (2.7) per minute during the height of vehicular traffic on Saturdays. This small increase in traffic is not likely to have a significant impact to the potential for Karner blue roadkill events nor will it materially increase noise/sound levels in this corridor.

2.1.4 Conclusion

No suitable habitat exists on-site for the Karner blue butterfly, and no Karner blue butterflies were located on the site. The increase in traffic that is to come from the project can be considered negligible in terms of Karner blue fatality events. Thus, there are no potential adverse impacts to the Karner blue butterflies as a result of the Project. Further, as noted above, partial protection of the subject site was recommended in the 2017 Management Plan to protect the linkage between Crossgates Hill and preserve lands to the east. The project is consistent with the goal and objectives of the management plan and no impacts to the Karner Blue Hill Preserve area nor its intended functions and purposes will occur.

2.2 Frosted Elfin (*Incisalia irus*)

2.2.1. Habitat and Needs

The frosted elfin is listed by New York State as threatened. The NYSDEC defines threatened as “any native species likely to become an endangered species within the foreseeable future in New York State.”

It is not a federally listed species.

The males are gray-brown above and females are reddish overall or in patches. The frosted elfin occurs from Florida north to New England, and west to Alabama and Wisconsin. In the eastern parts of its range, it occurs in mostly small patches of habitat, but larger populations are found further west, where the habitat is more contiguous. The life cycle of the frosted elfin begins with a yellowish-green caterpillar that feeds on the flowers and fruits of lupines (*Lupinus sp.*) and false indigo (*Baptisia tinctoria*). Examples of host plants include lupines, false indigo and rattlebox (*Crotalaria sagittalis*). The chrysalis or pupa weaves a loose threaded cocoon in organic material and leaf litter to over winter. The elfin takes flight between late April and May and has one brood. They are weak fliers but are efficient colonizers that establish small, scattered populations. These insects inhabit open, second growth woods, roadside areas near host plants, Pine Barrens, and open brushy fields.

2.2.2. Potential On-site

The subject site does not provide adequate or suitable habitat for the frosted elfin butterfly. The elfin relies on specific host plants (but a broader species pallet than the Karner blue) which the caterpillar feeds on. These plants include lupines, false indigo and rattlebox. Neither the elfin, nor any of these plants have been identified on-site. The blue lupine plant has been identified in the Albany Pine Bush but not on this site. Albany Pine Bush habitat, occurs to the north of the site,

across Gipp Road, which may be suitable for the frosted elfin. Although the site does not contain adequate or suitable habitat for such species, the closed canopy, densely-vegetated, secondary successional woodland area separating the site from the Pine Bush communities to the north and northwest acts as a further deterrent to occupy the site for these weak fliers. The northern area of the site is not proposed to be developed as a part of this Project extends from the northern boundary at Gipp Road and will extend approximately 200 feet south.

2.2.3. Conclusion

No suitable habitat exists on-site for the frosted elfin. No frosted elfin were located on the site thus, there are no potential adverse impacts to the frosted elfin as a result of the Project.

2.3 Northern Long-eared Bat (*Myotis septentrionalis*)

2.3.1 Habitat and Needs:

The northern long-eared bat (or long-eared Myotis) is listed by New York State and the federal government as Threatened. This listing is relatively new and occurred in April 2015. The northern long-eared bat's range includes much of the eastern and north central United States, and all Canadian provinces from the Atlantic Ocean west to the southern Yukon Territory and eastern British Columbia. Like most Northeastern bats, they feed solely on flying insects and presumably males spend the summer preparing for the breeding season and winter that follows; the females spend the summer raising their pups.

Northern Long-eared bats are typically associated with cave habitats when hibernating in the winter and trees with crevasses and snags for roosting in the summer. Suitable potential summer roosting/maternity habitat is characterized by numerous trees (e.g. dead, dying, or alive) or snags, down to 3 inches diameter breast height (d.b.h.). The northern long-eared bat is currently presumed by USFWS to have a biology and life history very similar to the Indiana bat (*Myotis sodalis*), with a difference being that the northern long-eared bat will also roost in old, loosely sealed, or abandoned structures.

2.3.2 Potential On-site:

The subject site does not contain any cave habitats and is, therefore, not suitable habitat for winter-hibernating northern long-eared bats. No abandoned structures exist on site, but a number of large trees such as cottonwood and red maple, including some older, broken individuals have the potential to provide summer roosting habitat for this species.

However, according to the NYSDEC website, this location is outside the 5-mile radius of the nearest, recorded winter hibernaculum and is more than 7-miles away from known hibernacula. There are no confirmed summer occurrences of the NLEB in Albany County.

2.3.3 Conclusion:

The site is largely comprised of secondary growth woodland, some of which will be cleared for the project. Because this site is outside the 5-mile radius of the nearest, recorded winter hibernaculum and is slightly more than 7-miles away from known hibernacula, and because there have been no confirmed summer occurrences in Albany County, it is not likely that these bats would be found on or near the site. Therefore, there are no anticipated potential adverse impacts on the northern long-eared bat as a result of the project.

3.0 POTENTIAL SPECIAL CONCERN ZOOLOGICAL SPECIES OF NEW YORK STATE

3.1 Worm Snake (*Carphophis amoenus*)

3.1.1 Habitat and Needs

The worm snake is listed by New York State as a species of special concern. NYSDEC defines special concern as “any native species for which a welfare concern or risk of endangerment has been documented in New York State.” The worm snake is characterized as an un-patterned brown snake with a pink belly, pointed head and small eyes. Its range is southern New England to central Georgia, west to southeast Nebraska, eastern Kansas, eastern Oklahoma and extreme northeast Texas. The worm snake breeds from April to May and September to October. During cold periods, it retreats deep into soil. These snakes dwell in damp locations such as under rocks, decaying logs or stumps in loose soils. Typical habitat for the species includes damp hilly woodlands, partially wooded or grassy hillsides above streams and farmland bordering woodlands. The worm snake predominantly feeds on earthworms.

3.1.2. Potential On-site

The project site does not provide adequate or suitable habitat for the worm snake. The preferred habitat for the snake is shallow, sandy soils within or bordering damp woodlands or streams. Although sandy soils do occur on-site, the site does not provide the habitats typical of the worm snake. The Soil Survey of Albany County depicts well drained Colonie, Elnore and Udipsamments soils as occurring on-site. It further depicts the site as containing some somewhat poorly drained, sandy Stafford and Granby soils. However, the site’s vegetation is dominated by upland species; it has been substantially filled; it has been subject to significant erosion. These factors have caused the wetter soils to fill and they are now are on the drier end of their drainage class (i.e., moderately well drained). On-site soil samples also confirmed the *absence* of Stafford or Granby soils, with a well-drained, sandy soil actually being present.

The worm snake is found at or near the soil surface for most of the year. However, the soil surface of the project site has been very significantly disturbed for many decades. This was/is the result of (i) surface grubbing by pigs, (ii) agricultural practices, (iii) disturbed, fill soils placed on-site and (iv) extensive erosion resulting from both. These activities would have eliminated the species decades ago. In addition, no free water was observed within 18 inches of the surface. The lack of an aquiclude prevents water retention and so, hydric soils have not formed. No wetlands, streams, ponds or waters occur on or near the site. The closest “waters” are eastward, 1,000 plus feet just west of the Washington Avenue Extension and are in the form of a storm basin associated with a cable services provider. No surface waters occur to the west for at least 6,000 feet. Worm snakes are intolerant of dry conditions and often disappear from areas that have been cleared of vegetation, such as the vast majority of the project site. The entire site is disturbed and/or contains excessively to moderately well drained soils. These soils were subjected to and heavily disturbed by hog farming for decades. The hogs “root” in the upper few feet of the soils. This is particularly devastating to herptiles which live in the upper soils. Migration of the species to the site⁷ is unlikely due to the condition of the site and as limited by adjacent roadways.

While surveying for eastern worm snake, trained observers methodically walked the Site in

⁷ The worm snake was determined to occur in the right-of-way to the northeast of Crossgates “Butterfly Hill.” (approx. 1,500 feet east of the site) by B. Laing Associates, Inc. and NYSDEC Region 4, June 2007.

rough transects, searching for individual organisms, as well as their habitat and under objects beneath which they might roost/hide. No individuals of this species were found on Site.

3.1.3 Conclusion

Little to no suitable habitat exists on-site (i.e., the site was cleared and the upper soils disturbed by hog farming) or in the vicinity for the worm snake. However, the site was specifically searched for the species and none were found. Thus, there are no potential adverse impacts to the snake as a result of the Project.

3.2 Eastern Spadefoot Toad (*Scaphiopus holbrookii*)

3.2.1 Habitat and Needs

The eastern spadefoot toad is listed by New York State as a species of special concern. NYSDEC defines special concern as “any native species for which a welfare concern or risk of endangerment has been documented in New York State.” The spadefoot is described as a stout toad with very elliptical pupils and a sickle-shaped spade on each hind foot. The eastern spadefoot occurs in much of the eastern United States, from Alabama eastward and north to Massachusetts. Breeding occurs from March to September during extremely heavy rains. Egg deposition occurs in temporary pools or ponds of rain. Toads will travel to reach these breeding areas. The toad is nocturnal and lives in shallow holes protecting itself from inclement weather above. The eastern spadefoot is typically found in areas of moist meadows, “prairie” woodlands and pine scrub. It inhabits areas with sandy or friable soils. This species feeds on other frogs and toads as well as any prey they can catch.

3.2.2 Potential On-site

The project site does not provide adequate or suitable habitat for the eastern spadefoot toad. The preferred habitat for the toad is moist meadows, “prairie” woodlands and pine scrub with shallow, sandy soils. The Soil Survey of Albany County does depict the site as consisting of sandy soils; however, the majority of the site was and is significantly disturbed. No moist habitats occur on-site. This is the result of (i) surface grubbing by pigs, (ii) agricultural practices, (iii) disturbed, fill soils placed on-site and (iv) extensive erosion resulting from both. These activities (especially grubbing in the upper soils) would have eliminated the species decades ago, if it had occurred on the project site.

No wetlands, streams, ponds or waters occur on or near the site. The average distance from wetlands, for the eastern spadefoot toad, post-breeding, has been recorded between 130 meters (426 feet) with a maximum of 449 meters (1,473 feet). The closest mapped wetlands are 6,000 feet from the site⁸. Finally, migration of the species to the site is unlikely and limited by the

⁸ A wet, fenced-in “storm” basin occurs 1,000 feet to the site’s east behind a commercial cable company facility. This basin was found in 2008-2009 to contain fish. Spadefoot toads will only breed in waters which are vernal and lack fish species. Further, the site is separated from this storm basin by two roads and the mall’s extensive parking lots. As such, no spadefoot toad populations were found or were expected to occur at or near that location.

excessive distances to the nearest wetlands, intervening roadways to the north and east, adjacent residential developments to the west and south, the man-made berm on its western boundary and major shopping center to the east.

While surveying for eastern spadefoot toad, trained observers methodically walked the Site in rough transects, searching for individual organisms, as well as their habitat and under objects beneath which they might roost/hide. In addition, nocturnal surveys were conducted during spring and summer to listen for vocalizing frogs and toads. No individuals of this species were located on Site.

3.2.3. Conclusion

Little to no suitable habitat exists on-site or in the vicinity for the eastern spadefoot toad. However, the site was specifically searched for the species and none were found. Thus, there are no potential adverse impacts to the toad as a result of the Project.

3.3 Eastern Hognose Snake (*Heterodon platyrhinos*)

3.3.1. Habitat and Needs

The eastern hognose snake is listed by New York State as a species of special concern. NYSDEC defines special concern as “any native species for which a welfare concern or risk of endangerment has been documented in New York State.” The hognose snake is a stout-bodied snake with pointed, slightly upturned snout and wide neck. The snake is found from eastern-central Minnesota to extreme southern New Hampshire south to Florida and west to east Texas and western Kansas. The snake mates in spring and fall and resides in shallow cavities in loose or sandy soil from June to July. During winter months, the snake burrows deeper into loose earth. Sandy soils are an essential habitat characteristic for hognose snakes. These snakes can be found in sandy woodlands, fields, thinly wooded upland hillsides, farmland and coastal areas (dunes). The hognose snake mainly feeds on toads and frogs.

3.3.2. Potential On-site

The site does not provide adequate or suitable habitat for the eastern hognose snake. The snake prefers sandy soil fields, woodlands and coastal areas. The Soil Survey of Albany County does depict the site as consisting of sandy soils; however, the majority of the site is currently disturbed. As previously mentioned, the site was previously used as a pig-farm and therefore disturbed by (i) surface grubbing by pigs, (ii) agricultural practices, (iii) disturbed, fill soils placed on-site and (iv) extensive erosion resulting from both. These activities (especially grubbing in the upper soils) would have eliminated the species decades ago, if it had occurred on the project site. In addition, the abovementioned actions would have also eliminated species of toads and frogs, the hognose snake’s primary prey. The existing site does not provide suitable habitat for those species and, thus, there is most likely limited prey/food for the hognose snake. The eastern

hognose snake may be found in the Albany Pine Bush where more suitable habitat occurs. Further, it was reported that the eastern hognose snake has occurred in the National Grid Right of Way (north and east of the project site) in years past. The species could have possibly existed in the right of way because of the “field-like” (open) condition. The right of way is maintained as such due to the high voltage power lines. It is unlikely the snake would migrate toward the project site since (a) a man-made berm separates the site including unsuitable habitat and (b) there is little to no suitable habitat within the project site boundaries due to its forest-like and disturbed conditions consisting of dense undergrowth.

While surveying for eastern hognose snake, trained observers methodically walked the Site in rough transects, searching for individual organisms, as well as their habitat and under objects beneath which they might roost/hide. No individuals of this species were found on Site.

3.3.3 Conclusion

Little to no suitable habitat exists on-site or in the vicinity for the eastern hognose snake. However, the site was specifically searched for the species and none were found. Thus, there are no potential, significant adverse impacts to the snake as a result of the Project.

3.4 Butterflies and Moths

3.4.1 Listed Species

In addition to Section 2 above, many species of butterflies and moths were identified within the January 6, 2017 correspondence from New York Natural Heritage Program. These species include: Inland Barrens Buckmoth (*Hemileuca maia maia*, Special Concern), Edwards’ Hairstreak (*Satyrium edwardsii*, Unlisted), Bird Dropping Moth (*Cerma cora*, Unlisted), Two-striped Cord Grass Moth (*Macrochilo bivittata*, Unlisted), Barrens chytonix (*Chytonix sensilis*, Unlisted) and Pine Barrens Zanclognatha (*Zanclognatha martha*, Unlisted). These species have been documented in pitch pine/scrub oak barrens of the Albany Pine Bush.

3.4.2 Potential On-site

The project site does not provide adequate or suitable habitat for the above listed butterflies and moths. These species prefer sandy pine barrens/pine bush and pitch pine/scrub oak habitats found in the Albany Pine Bush. The subject site is outside the Albany Pine Bush area where these species have been documented. The canopy of the woodland is closed and composed mostly of mature and young cottonwood. Other treed species include white pine, red maple, black cherry, and boxelder. Shrubs identified in this area include Japanese honeysuckle, tartarian honeysuckle, serviceberry, and hawthorn. The project site does not constitute a pitch pine/scrub oak barrens/pine bush community habitat where these species could occur. Additionally, the Barrens chytonix and Two-striped Cord Grass Moth inhabit maritime grasslands and wetlands, respectively. No wetlands occur on-site or within a 0.5 mile of same⁹.

⁹ Further, there are no “maritime” habitats in the region.

3.4.3 Conclusion

Little to no suitable habitat exists on-site or in the immediate vicinity for these butterflies and moths. However, the site was specifically searched for the species and none were found. The search methodology included walking transects and active searching for day-flying butterflies and moths as well as nocturnal moth surveying via standard blacklight attracting of same. As none of the above lepidopteran species' habitat exists on site, and no individuals of same were observed on site, there are no potential adverse impacts to these species as a result of the Project.

3.5 Avian Species

3.5.1 Listed Species

Three avian (bird) species of special concern - Eastern Whip-poor-will (*Caprimulgus vociferus*), Sharp-shinned Hawk (*Accipiter striatus*), and Cooper's Hawk (*Accipiter cooperii*) - were identified by the NYSDEC as potentially existing in the area.

3.5.2 Potential On-site

As a closed canopy/successional woodland, the site has the potential to be hunting habitat for Cooper's Hawk and Sharp-shinned Hawk. Both of these *Accipiter* hawks have rebounded in population since the mid-1900's, when DDT usage and hunting caused their numbers to decline. This is also due to the fact that these raptors have adapted well to utilize man-altered landscapes as well as "natural" woodlands. B. Laing personnel has searched for these raptors on Site on many occasions. While these species were not located on the site, it may be possible that these avian species, based on their mobility, visit certain areas of the Site for foraging. After the construction of the project, such species will continue to be able to use the undeveloped areas of the Site, such as the wooded northern 200 foot wide, undeveloped area and wooded permanent setbacks along with other nearby heavily wooded areas. Sharp-shinned hawks were not observed on Site by B. Laing personnel. One Cooper's hawk was observed during field investigations, but it was soaring high in the vicinity of the Site, and so was not utilizing it.

Eastern Whip-poor-wills in New York State tend to prefer pitch pine/scrub oak barrens as well as oak-hickory forests. This species typically requires larger, undisturbed acreages for their life history, than either of the *Accipiters* listed above. As such, this species would much more likely be found in the larger, undisturbed acreages of Albany Pine Bush. The Site is located in a highly developed residential and commercial area. Despite the fact that the habitat requirements are not met on Site for the Eastern Whip-poor-will, B. Laing personnel listened for this species, in the summer (when this species is very vocal), and none were heard or observed on Site.

3.5.3 Conclusion

Little to no suitable habitat exists on Site or in the immediate vicinity of Site 1 for Eastern Whip-poor-will. However, the Site was specifically searched for the species and none were found. While it may be possible that the site contains some foraging habitat for Cooper's Hawk and Sharp-shinned Hawk, no impacts to these species are anticipated. As raptors, these *Accipiter* species are very mobile and well adapted to man-altered landscapes. B. Laing personnel did not

observe either Cooper's Hawk or Sharp-shinned Hawk on the project site. Therefore, there are no potential significant impacts to Eastern Whip-poor-will, Cooper's Hawk, or Sharp-shinned Hawk as a result of the project.

3.6 Pitch Pine-Scrub Oak Barrens

3.6.1 Potential On-site

The project site does not contain pitch pine-scrub oak barrens/pine bush. This terrestrial community is located within the Albany Pine Bush preserve. No Albany Pine Bush habitat occurs on the site. The subject site is a closed canopy woodland and composed mostly of mature and young cottonwood. Other treed species include white pine, red maple, black cherry, and boxelder. Shrubs identified in this area include Japanese honeysuckle, tartarian honeysuckle, serviceberry, and hawthorn. The project site does not constitute a pitch pine scrub oak barrens habitat as characteristics of this terrestrial community are not present.

The project has an undeveloped area some 200 foot deep from north to south across the entire frontage with Gipp Road. This proposed undeveloped area is also closed canopy woodland, composed mostly of cottonwood with dense, tangled undergrowth. It has been in this successional state following substantial fill and soils disturbance approximately two decades ago. Before its current ownership, the site, including the proposed buffer, was a pig farm for many decades. As a pig farm, the vegetation was virtually stripped (and kept clear by the farmer and pigs), soils were rooted-through and a great deal of surface erosion occurred. Since that time, considerable fill has been placed on site, especially in the northern section. Given the above, in the modern period, this site has not been, and is not, Pine Bush habitat. In addition, the converting of this site to Pine Bush habitat would be very challenging, if not impossible given the enormous costs involved in creating what amounts to new ecological conditions, as no qualities of the natural state remain.

3.6.2 Area 62 Public Benefit/Mitigation

The applicant owns a parcel north of, and contiguous to, the Karner Blue Butterfly Mitigation Corridor/National Grid right-of-way. This property is referred to as Area 62 under the Pine Bush Commission's Protection Priorities and Vision Plan and is known to contain vegetation and habitats characteristic of the Albany Pine Bush. Unlike the project site, Area 62 is largely comprised of pitch pine, scrub oak, lowbush blueberry, and other species. While more successional/mature than the National Grid right-of-way, this location has the potential to be habitat for many of the listed species presented in Sections 2 and 3, above.

The applicant has proposed to voluntarily convey a \pm 6.8-acre parcel to the Commission (Tax Map parcel no. 52.02-1-16) identified as "Area 62" on the Pine Bush Management Plan, as well as Tax Map parcels 52.06-2-35 (\pm 1.0 acre) and 52.06-2-29.1 (\pm 0.60 acres). The addition of these parcels will expand the existing Karner Blue Hill Preserve to the north which is an environmental and public benefit of the project. Area 62 and the other parcels are immediately adjacent to the Karner Blue Hill Preserve corridor and have been identified as "full protection" under the Management Plan. Area #62 has very sandy, dry soils and contains pitch pine-scrub

oak vegetation, typical of the Albany Pine Bush. This area is adjacent to and north of the Karner Blue Hill Preserve which is managed by NYSDEC and the Pine Bush Commission. Area 62 is not currently managed and contains a mature overstory tree canopy. With an extension of the Karner Blue Hill Preserve corridor northward, the area would significantly contribute to available Karner blue butterfly habitat in that area. This conveyance will enable, and continue to foster, the recovery plan for the Karner blue butterfly.

Because no pitch pine/scrub oak barrens exist on site and the project is consistent with the management plan, including but not limited to, the Commission's ability to manage the preserve lands, no potential adverse impacts to the Albany Pine Bush are anticipated (see *Conclusion* below). However, as a public benefit, the applicant has proposed to convey Area 62 to the Albany Pine Bush Preserve Commission for inclusions in the Commission's "Preserved Lands" inventory. Area 62 represents a parcel of pitch pine/scrub oak barrens, but is presently unmaintained. By voluntarily conveying Area 62 to the Albany Pine Bush Commission, the project will offer valuable habitat to potential listed species such as the Karner blue butterfly, eastern worm snake, etc. and preserve this piece of land for inclusion in the Albany Pine Bush Preserve. The Commission has acknowledged that such a conveyance would help alleviate their concern regarding potential significant adverse environmental impacts of the project, "and mitigate the loss of Partial Protection Area 57."

3.6.3 Conclusion

As above, the project site does not constitute a pitch pine/scrub oak barrens habitat. Thus, there are no potential adverse impacts to Albany Pine Bush habitat or its fauna as a result of the Project. However, the applicant owns the parcel known to the Pine Bush Commission as Area 62. As Area 62 is proposed to be conveyed to the Albany Pine Bush Commission as a public benefit as a part of this project, the project can be considered a net benefit to the pitch pine/scrub oak community as a whole.

4.0 CONCLUSION

B. Laing Associates, Inc. conducted thorough ecological assessments of the project site and its surrounds. During the review, no threatened, endangered species of special concern, rare or other ecologically sensitive species or significant ecological habitats were identified on the property. The site is dominated by a closed canopy, secondary growth woodland in an upland condition, which is indicative of prior use as a pig farm and/or manipulated lands. While the site is located within the vicinity of certain identified threatened and endangered species and their habitat, this site is not within the Albany Pine Bush and it does not contain the flora and most of the fauna typically associated with in the Albany Pine Bush. Provisions have been incorporated in the project plans to provide adequate buffering for the Pine Bush linkage corridor land to the north of the site. B. Laing Associates, Inc. has analyzed the proposed action in respects to proposed environmental and ecological disturbance and has determined that no significant adverse environmental impacts will occur to any listed species, flora or fauna as a result of the project. In addition, the applicant has proposed to convey ±8.4 acres of land under its control to the Commission. These parcels are known as area 62 under the Commission's Management Plan, are located immediately adjacent to the Karner Blue Butterfly migration corridor and its vegetation is currently pitch pine scrub oak and other native Pine Bush species. Most importantly, Area 62 is designated as "Full Protection" land under the Commission's Management Plan. Because Area 62 is proposed to be offered to the Albany Pine Bush Commission as a part of the project, there will be a net benefit to the Pine Bush community as 8.4 acres of Pine Bush habitat will be maintained and preserved.

APPENDIX A

PHOTOGRAPHS



Photo A1: Existing conditions on-site are consistent with secondary successional woodland. (12/16)



Photo A2: Existing conditions on-site are consistent with secondary successional woodland. (June 2017)
Note the extensive and dense vines and closed canopy.



Photo B: Early summer conditions on-site looking south near Westemere Terrace. (June 2017)



Photo C: Typical hue value/chroma of soils on-site observed approximately 18" to 24" below surface layer.
(12/16)



Photo D: Looking along the small “field” area at the southern end of the site. Notice a lack of any blue lupine or other indicators of Karner blue habitat. (6/17)



Photo E: A photo taken **off-site** at the National Grid right-of-way to the north. When compared to Photos A-D, above, notice the typical Karner blue habitat consisting of shrub oak and pitch pine with an open canopy. (12/16)



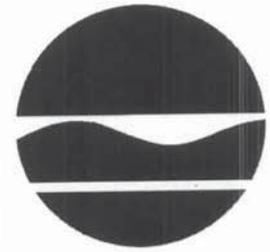
Photo F: Looking south across Gipp Road at the 50' tall trees and heavily wooded area which is proposed as a 200' buffer, separating the project site from Gipp Road. (August 2019)

APPENDIX B

NYSDEC NY NATURAL HERITAGE CORRESPONDENCE

US FISH AND WILDLIFE SERVICE IPaC SEARCH RESULTS

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Fish & Wildlife
New York Natural Heritage Program
625 Broadway, 5th Floor, Albany, New York 12233-4757
Phone: (518) 402-8935 • **Fax:** (518) 402-8925
Website: www.dec.ny.gov



January 6, 2017

Danna Cuneo
B. Laing Associates, Inc.
225 Main Street
Northport, NY 11768

Re: Crossgates Mall site located northwest of Crossgates Mall and Rapp Road/Route 203, and south of Gipp Road
Town/City: City Of Albany, Guilderland. County: Albany.

Dear Ms. Cuneo:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities that our database indicates occur, or may occur, on the project site or in its vicinity.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our database. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

Our database is continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 4 Office, Division of Environmental Permits, as listed at www.dec.ny.gov/about/39381.html.

Sincerely,

Nicholas Conrad
Information Resources Coordinator
New York Natural Heritage Program



The following state-listed animals have been documented in the vicinity of the project site.

The following list includes animals that are listed by NYS as Endangered, Threatened, or Special Concern; and/or that are federally listed or are candidates for federal listing.

For information about any permit considerations for your project, contact the Permits staff at the NYSDEC Region 4 Office. For information about potential impacts of your project on these species, and how to avoid, minimize, or mitigate any impacts, contact the Wildlife Manager.

A listing of Regional Offices is at <http://www.dec.ny.gov/about/558.html>.

The following species have been documented adjacent to the project site in Pine Bush habitat. If suitable habitat exists at the project site, these species may occur also occur there.

<i>COMMON NAME</i>	<i>SCIENTIFIC NAME</i>	<i>NY STATE LISTING</i>	<i>FEDERAL LISTING</i>
Butterflies			
Karner Blue	<i>Plebejus melissa samuelis</i>	Endangered	Endangered 12420
Frosted Elfin	<i>Callophrys irus</i>	Threatened	12497

This report only includes records from the NY Natural Heritage database. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the listed animals in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, and from NYSDEC at www.dec.ny.gov/animals/7494.html.



The following rare animals and significant natural communities have been documented in the vicinity of the project site.

We recommend that potential onsite and offsite impacts of the proposed project on these species or communities be addressed as part of any environmental assessment or review conducted as part of the planning, permitting and approval process, such as reviews conducted under SEQR. Field surveys of the project site may be necessary to determine the status of a species at the site, particularly for sites that are currently undeveloped and may still contain suitable habitat. Final requirements of the project to avoid, minimize, or mitigate potential impacts are determined by the lead permitting agency or the government body approving the project.

The following animals, while not listed by New York State as Endangered or Threatened, are of conservation concern to the state, and are considered rare by the New York Natural Heritage Program.

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	HERITAGE CONSERVATION STATUS	
Reptiles				
Eastern Wormsnake	<i>Carphophis amoenus</i>	Special Concern	Imperiled in NYS	
Crossgates North, 2009-07-08: The snakes were found in a power line right-of-way and early successional, weedy, sandy parking lot. In the power line right of way, a snake was found under a rotten stump. In the parking lot, a snake was found in moist sand under a wooden pallet, and in an area with more compact substrate under a piece of cardboard.				12998
Amphibians				
Eastern Spadefoot	<i>Scaphiopus holbrookii</i>	Special Concern	Imperiled in NYS	
Albany Pine Bush, 2006-06-26: This is a pine barrens community that has undergone restoration. The area where the spadefoots were found is primarily open canopy, with the exception of some wet areas within the adjacent oak woods. The soils are sandy and a few lone native trees have been left in place in the restored opening. Blue lupine has been planted in this area.				12395
Butterflies and Moths				
The following species have been documented in pitch pine-scrub oak barrens in the Albany Pine Bush.				
Inland Barrens Buckmoth	<i>Hemileuca maia maia</i>	Special Concern	Critically Imperiled in NYS	4909
Edwards' Hairstreak	<i>Satyrrium edwardsii</i>	Unlisted	Vulnerable in NYS	10331
Bird Dropping Moth	<i>Cerma cora</i>	Unlisted	Critically Imperiled in NYS	5875
Two-striped Cord Grass Moth	<i>Macrochilo bivittata</i>	Unlisted	Imperiled in NYS	7051
A Noctuid Moth	<i>Chytonix sensilis</i>	Unlisted	Imperiled in NYS	8841
Pine Barrens Zanclognatha	<i>Zanclognatha martha</i>	Unlisted	Critically Imperiled in NYS	9628

The following significant natural communities are considered significant from a statewide perspective by the NY Natural Heritage Program. They are either occurrences of a community type that is rare in the state, or a high quality example of a more common community type. By meeting specific, documented criteria, the NY Natural Heritage Program considers these community occurrences to have high ecological and conservation value.

<i>COMMON NAME</i>	<i>SCIENTIFIC NAME</i>	<i>NY STATE LISTING</i>	<i>HERITAGE CONSERVATION STATUS</i>
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Upland/Terrestrial Communities

Pitch Pine-Scrub Oak Barrens

High Quality Occurrence of Rare Community Type
and Globally Rare

Albany Pine Bush: This good to excellent quality barrens is moderately sized with excellent physiognomic diversity in a fragmented landscape. Exotic species are present but active management including prescribed burning is reducing their extent and will increase the acreage of the community over time.

4632

This report only includes records from the NY Natural Heritage database. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the rare animals and plants in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, from NatureServe Explorer at www.natureserve.org/explorer, and from USDA's Plants Database at <http://plants.usda.gov/index.html> (for plants).

Information about many of the natural community types in New York, including identification, dominant and characteristic vegetation, distribution, conservation, and management, is available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org. For descriptions of all community types, go to www.dec.ny.gov/animals/97703.html for Ecological Communities of New York State.

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Albany County, New York



Local office

New York Ecological Services Field Office

☎ (607) 753-9334

📠 (607) 753-9699

3817 Luker Road
Cortland, NY 13045-9349

<http://www.fws.gov/northeast/nyfo/es/section7.htm>

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service.

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045	Threatened

Insects

NAME	STATUS
Karner Blue Butterfly <i>Lycaeides melissa samuelis</i> There is proposed critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/6656	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

APPENDIX C

DATES OF WILDLIFE SURVEYS

Dates of Wildlife Surveys
B. Laing Associates, Inc.

December 7-8, 2016
June 13, 2017
July 7, 2017
November 22, 2017
June 4-5, 2018
July 31, 2018
August 1, 2018
August 21-22, 2018
October 11, 2018
December 10, 2018
December 12-13, 2018
March 19-20, 2019
March 25-26, 2019
April 23-25, 2019
April 25, 2019
May 14-15, 2019
June 10-11, 2019
July 10-11, 2019
August 23, 2019
October 16-17, 2019

APPENDIX D

PROPOSED SITE PLAN